

Facts about Munz's Onion and Critical Habitat

What is *Allium munzii* (Munz's onion)?

A perennial herb in the lily family (Liliaceae), Munz's onion is one of seven species belonging to the *Allium fimbriatum* complex.

Munz's onion plants grow from 6 inches to a little over a foot high. It can take three to five years after germination for Munz's onion to reach maturity and begin producing flowers. Mature plants produce a single, cylindrical leaf prior to flowering. The flowers themselves are white to pale pink, and the best time of year to see them is in early May.

Munz's onion has a narrow range of distribution. This plant only occurs in mesic clay soils in western Riverside County, California. These soils are scattered within a 40-mile long band that's several miles wide, generally running from the Gavilan Hills to west of Temescal Canyon and Lake Elsinore, and along the Elsinore Fault Zone to the southwestern foothills of the San Jacinto Mountains near Lake Skinner and Vail Lake. Within this band of soils, Munz's onion occurs at elevations between 984 and 3,511 feet.

Why is this plant protected under the Endangered Species Act?

When determining whether a species qualifies for listing under the Endangered Species Act (Act), the Service looks at five separate factors, including: (1) present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; and (5) other natural or manmade factors affecting its continued existence.

Munz's onion was listed as an endangered species under the Act on October 13, 1998, based on factors 1, 4, and 5. This plant is currently limited to 19 occurrences, most of which contain fewer than 1,000 plants. Primary threats to the plant include loss, fragmentation, and alteration of habitat as a result of urban development, off-highway vehicle activity, clay mining, dry-land farming, and the introduction of non-native, competitive plants.

This plant is also listed by the State of California as a threatened species pursuant to the California Endangered Species Act.

What are the primary habitat requirements for Munz's onion?

When designating critical habitat, the Service must determine – based on the best available scientific information – what physical and biological features (primary constituent elements) are essential to the conservation of a species and which may require special management considerations or protection.

Primary constituent elements are those specific habitat components that enable a species to fulfill its life cycle needs. In the case of Munz's onion, primary constituent elements include the following: (1) clay soil series of sedimentary origin (e.g., Altamont, Auld, Bosanko, Claypit, and Porterville) or clay lenses of the sort that might be found within unmapped inclusions in other soil series, which occur on level areas and slopes between 985 and 3,500 feet elevation above mean sea level and are part of open native or non-native grassland plant communities; (2) soil series of sedimentary or igneous origin with clay subsoils (e.g., Cajalco, Las Posas, Vallecitos) found on level areas and slopes generally between 985 and 3,500 feet above mean sea level within open native or non-native grassland plant communities; or (3) alluvial soil series of sedimentary or igneous and terrace escarpment soils (e.g., Greenfield, Ramona, Placentia, Temescal) as part of alluvial fans that underlie open native or non-native grassland plant communities; (4) clay soils or other substrate as described above with intact, natural surface or subsurface structure that have not been altered by land use activities (e.g., disked, graded, excavated, re-contoured) and which provide for the physical processes necessary to support the plant communities in which the species is found.

The Service designated 176 acres of land on Cleveland National Forest as critical habitat Munz's onion. The area designated as critical habitat supports a population of approximately 5,000 plants and is one of the least disturbed populations remaining for the species.

Are there other areas that are essential to Munz's onion conservation?

Yes. There is essential habitat for Munz's onion in other areas of western Riverside County, however, the Service did not include these areas as critical habitat.

Several Habitat Conservation Plans (HCP) are in place that address the conservation needs of Munz's onion. Completed HCPs that fall in this category include the Rancho Bella Vista, North Peak Development Project, Lake Mathews, and the Western Riverside County Multiple Species HCPs.

Although lands on Cleveland National Forest are within the broad planning boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the Service designated critical habitat on essential Federal lands because activities on those lands will not be specifically covered under the permit for the Western Riverside County MSHCP.

What does critical habitat mean for the U.S. Forest Service?

All Federal agencies are required to consult with the Service regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated critical habitat.

The designation of critical habitat on Cleveland National Forest land requires the U.S. Forest Service to consult with the Service if it determines that a proposed action may affect Munz's onion or its critical habitat.

The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of Munz's onion or adversely modify or destroy its designated critical habitat.